UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,319	10/22/2003	Philip D. Nguyen	2003-IP-010380U1	5926

71407 7590 07/08/2008

ROBERT A. KENT
P.O. BOX 1431
DUNCAN, OK 73536

EXAMINER	
TSOY, ELENA	

ART UNIT	PAPER NUMBER
1792	

NOTIFICATION DATE	DELIVERY MODE
07/08/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ROBERT.KENT1@HALLIBURTON.COM
Tammy.Knight@Halliburton.com

Advisory Action

The Request for Reconsideration filed on June 26, 2008 under 37 CFR 1.116 in reply to the final rejection has been entered and considered but is not deemed to place the application in condition for allowance for the reasons of record set forth in the Final Office Action mailed on 4/09/2008.

Response to Arguments

Applicant's arguments filed June 26, 2008 have been fully considered but they are not persuasive.

(A) **McDaniel and combination of McDaniel and Sielcken does not teach or suggest each and every element of the claims**

Applicants disagree and submit that the combination of McDaniel and Sielcken does not obviate independent claims 35 and 68 because the combination of references does not teach or suggest each and every element of the claims. Furthermore, McDaniel teaches away from Applicants' claimed particulates, and Sielcken fails to teach an on-the-fly process, as described in Applicants' Specification and claims. MPEP §§ 2141.02, 2142. i. McDaniel fails to teach or suggest each and every element of independent claims 35 and 68 McDaniel fails to teach or suggest "adhering the density reducing material to a surface of the coated particulate on-the-fly to create at least one reduced-density, coated particulate," as recited in independent claims 35 and 68. Rather, the filler material taught in McDaniel is combined with a binder to form a low-density composite particulate. See McDaniel at [0053], [0057]. Thus, McDaniel discloses that a composite particulate is made by mixing the filler particles with a binder to form "substantially homogenous core particles of granulated product comprising the filler particles and the first portion of binder." See McDaniel at [0059] and Fig. 5. This composite particulate may then optionally be coated with a second portion of binder. See McDaniel at [0059] and Fig. 6. McDaniel fails to teach adhering a density-reducing material onto the surface of the resin-coated composite particulate, or that a density-reducing material may be adhered on-the-fly. Sielcken fails to teach, suggest, or otherwise render obvious this missing element.

The Examiner agrees that McDaniel discloses that a composite particulate may be made by mixing the filler particles with a binder to form "substantially homogenous core particles of granulated product comprising the filler particles and the first portion of binder."

However, the Examiner does not agree that McDaniel limits its teaching to the embodiments selected by Applicants (e.g. shown in Fig. 6) because McDaniel explicitly teaches

in P57, "For example, a composite particle may comprise a *low density filler* material (such as **ground walnut shells**) together with a *higher density filler* material (such as finely divided silica), and a binder of polymer resin and cement, so long as the respective amounts of these ingredients results in a composite particle having the desired low density"; and in P59, "The composite particles are made by ***mixing*** filler particles selected from **at least one** member of the group consisting of *finely divided minerals*, fibers, *ground walnut shells*, ground almond shells, and ground coconut shells with at least *one binder*". Therefore, McDaniel does not teach away from claimed invention.

Thus, McDaniel teaches various different embodiments of his invention *without* teaching away one embodiment form another.

(B) **McDaniel teaches away from Applicants' "particulate material"**

McDaniel defines the particles it teaches as "composite particle[s] comprising filler particles.., bound by a suitable organic or inorganic binder." See McDaniel at [0053]. In particular, McDaniel teaches that "[t]he composite particles are made by mixing filler particles selected from at least one member of the group consisting of finely divided minerals, fibers, ground walnut shells, ground almond shells, and ground coconut shells with at least one binder." See McDaniel at [0059]. McDaniel further states that, "[i]n particular, the composite particles are made by mixing the filler particles with a first portion of binder to form substantially homogeneous core particles of granulated product comprising the filler particles and the first portion of binder. By 'substantially homogeneous' it is meant that the core particle has an absence of a large substrate particle as common, for example, for coated sand proppants." Id. A visual depiction of this is shown in Figure 5 of McDaniel. Applicants' independent claims 35 and 68 specifically recite "providing at least one coated particulate comprising a coating material and a particulate material." In Applicants' Specification, the term "particulate material" is defined as having "[s]uitable sizes rang[ing] from 4 to 100 U.S. mesh, [while] in certain preferred embodiments the sizes range from 10 to 60 US mesh." See Specification at [0013]; also see MPEP § 2111.01 (claims are to be interpreted in light of the specification). Therefore, Applicants respectfully submit that the "particulate material" recited in Applicants' claims is exactly the "substrate particle" which McDaniel specifically teaches an "absence of" in the composite particles. Therefore, McDaniel cannot obviate Applicants' claims because it teaches away from the "coated particulate" recited in Applicants' claims. MPEP § 2141.02.

The Examiner respectfully disagrees with this argument. First of all, in contrast to Applicants statement, the term "particulate material" in claims is not defined as having sizes ranging from 4 to 100 U.S. mesh.

Second, it is noted that the features upon which applicant relies (i.e., "particulate material" having sizes ranging from 4 to 100 U.S. mesh) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, **limitations from the specification are not read into the claims**. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, claims 35 and 68 read on particles of the same size adhered to each other by a binder.

Third, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The process of McDaniel in view of Sielcken, particles of low density and particles of high density and a binder mixed-on-the-fly would result in particles of claims 35 and 68.

(C) **Sielcken fails to teach an on-the-fly process**

The October 1 st Office Action states that Sielcken teaches "that a process that can be carried out in a stirred reactor as batchwise process may be carried out as a continuous process using a stirred tank reactor or a tubular reactor." (October 1st Office Action at 5; emphasis in original). The subject of Sielcken is a method for the preparation of an aldehyde. The cited portion of the reference describes suitable batchwise and continuous processes for the hydroformylation step of the aldehyde preparation method. Such processes do not obviate on-the-fly methods for adhering density-reducing materials onto a surface of a coated particulate for use in a subterranean formation, as there are substantial differences in structure and function of Applicants' invention and the invention of Sielcken. MPEP § 2141.01(a). Furthermore, the "tubular reactor" taught by Sielcken is not analogous to the on-the-fly method of Applicants' claims. In response to this argument, the Examiner has stated that "Sielcken teaches that if components can be mixed in a batchwise process, they may be mixed in a stirred tank reactor or a tubular reactor. Since mixing is a mechanical process, not chemical, it is irrelevant what particular components are to be mixed." (Final Office Action at 8A(C)., emphasis in original) This response fails to address Applicants' arguments that (1) there are substantial differences in structure and function of Applicants' invention and the invention of Sielcken and (2) the "tubular reactor" taught by Sielcken is not analogous to the on-the-fly method of Applicants' claims.

The Examiner respectfully disagrees with this argument. Sielcken teaches that if components can be mixed in a batchwise process, they may be mixed in a stirred tank reactor or a tubular reactor. Since mixing is a **mechanical** process, not chemical, it is irrelevant what particular components are to be mixed

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-142323. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy, Ph.D.
Primary Examiner
Art Unit 1792

July 14, 2008

/Elena Tsoy /

Primary Examiner, Art Unit 1792